

Claims:

I claim:

1. cancelled
2. (cancelled)
3. A Thermal Differential Reciprocating Engine apparatus comprising, in combination:
 - at least one horizontal material retaining means;
 - at least one thermally reactive material fixedly mounted within said horizontal material retaining means;
 - at least one temperature differential focusing means configured to apply temperature differentials to said thermally reactive material; and
 - at least one bearing means slidably mounted to said horizontal material retaining means, such that said bearing means may be in contact with, and react to, the changes in shape of the surface of said thermally reactive material which occur in response to temperature differentials applied by said temperature differential focusing means.
4. A Thermal Differential Reciprocating Engine apparatus according to claim 2 that provides at least one power take-off element fixedly attached to said bearing means so as to apply a restrictive sliding force to said bearing means.